

AMENDMENTS TO THE SPECIFICATION

Please replace paragraph [016] with the following revised paragraph:

[016] In ~~[[f]]~~Figures 2, 3, and 4 ~~[[and 5]]~~, the overlapping companion cartridge systems are shown in solid lines and the sensing cartridge is shown in broken lines.

Please replace paragraph [021] with the following revised paragraph:

[021] Reference will now be made in detail to the exemplary embodiments of the invention. Figure 1 illustrates an embodiment of the sensing cartridge. The term "assay element" refers to body fluid samples (such as blood), reagent chemicals, and analytes, which can support a variety of analytical methods, including electrochemical, chemiluminescence, optical, electrical, mechanical, and other methods. Blood chemistry tests such as blood gasses (including pO_2 , pCO_2), blood pH, hematology, hematocrit and coagulation and hemoglobin factors, as well as immuno-diagnostics, and DNA testing, ions (including Na^+ , Ca^{++} , K^+ [[⁷]]), and small molecules such as glucose and lactate can be performed on the sensing cartridge. The sensing cartridge (10) contains a system of body fluid accumulation reservoirs(16), reagent or calibration fluids reservoirs (16A), tubes (18), and assay active areas (20). The body fluid sample is introduced into the system through ~~[[to]]~~entry port (12). The body fluid accumulation reservoirs (16), which contain these samples, are connected to entry port (12) through tubes (18). Reagent or calibration fluids reservoirs (16A) contain assay elements stored during the manufacture of the sensing cartridge (10) and are connected to assay active areas (20) through tubes (18). The term "connect" or "connecting" refers to using plumbing for attachment of components of a system or

different systems. The term "system" refers to at least one space, structure, or mechanism for fluid management on the companion cartridge. The assay elements in reservoirs (16) and (16A) are transported through tubes (18) to the assay active areas (20) where the assay elements can be analyzed by the detectors on the instrument.